

# Nevada's Big Trees



## BIG TREE REGISTER

Second Edition

Published by the Nevada Division of Forestry Urban Forestry Program



# Introduction

The Nevada Big Tree Register is one of the most innovative programs among state forestry agencies nationwide. It is a citizen-based effort which depends on Nevadans' volunteer efforts.

Nevada Big Trees offers an opportunity for a broad range of people, from elementary school students to senior citizens, to participate in a program which can aid in long term conservation of tree and plant species.

Please consider this register a living document. The Nevada Big Tree Program hopes to increase awareness of these living landmarks. We hope you will help us continue its evolution.



Steve Robinson,  
State Forester - Firewarden

## Sincere Thanks

- ◆ Dr. David Charlet, professor at the Community College of Southern Nevada, has been invaluable in determining proper common and scientific name usages. He has also nominated state champions and has been a great support to the *Big Tree* program. Thank you, Dr. Charlet!
- ◆ Lisa Calderwood and Mark Hill, Division of Forestry employees who work out of the Las Vegas office, have gone to extraordinary lengths in their search for trees for this register. They have found rare and exotic species growing in the city limits and large native trees growing in the open spaces of Clark County. They have remeasured existing champions so that this register is accurate and timely. This register would not have been possible without their hard work. Thanks, Mark and Lisa!
- ◆ Mike Owens, citizen volunteer from Reno, went to great lengths in seeking out and remeasuring trees in the northern and western parts of the state. His efforts are greatly appreciated.
- ◆ David Early, Carson City Forester and consultant has been a great help in finding trees to add to this register. He also checks out trees already listed to be sure they are still standing and healthy. We highly value his efforts and offer him our sincere thanks.

*On The Cover: This champion Great Basin bristlecone pine is located in White Pine County. Its measurements are in the pine section of the register. Great Basin bristlecone pine is one of Nevada's two officially designated state trees. The nominators, Steve Anderson and Jim Whelan are in the photo.*

**NEVADA BIG TREE PROGRAM  
NEVADA DIVISION OF FORESTRY  
URBAN AND COMMUNITY FORESTRY PROGRAM**

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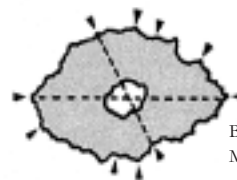
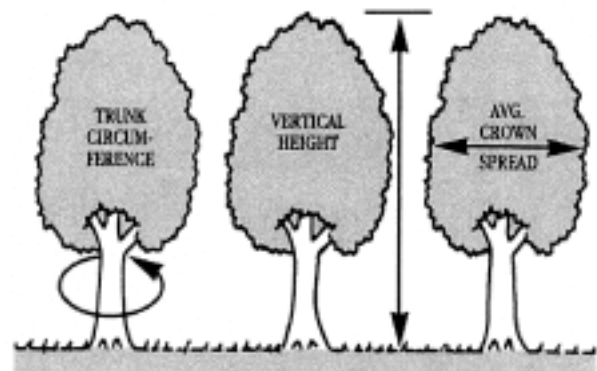
# Getting Your Tree Nominated

The Nevada Big Tree Register follows procedures used by **American Forests**, the nation's oldest nonprofit citizens' conservation organization, to catalog the biggest trees in the nation. **American Forests** publishes *The National Register of Big Trees*, which contains more than 700 champion native and naturalized tree species. Nevada trees large enough to be national champions are submitted to **American Forests**, under the name of the nominator, for inclusion in *The National Register*. The National Big Tree Program only recognizes trees listed in the *Checklist of United States Trees - Native and Naturalized* (Ag. Handbook No. 541). However, Nevada's program accepts any species considered to be a tree.

Nominating a big tree takes a few simple steps to ensure accurate measurements and consistent reporting. Both the Nevada and national programs require three measurements: *circumference (inches)*, *height (feet)* and *average crown spread (feet)*.

A nomination form and measuring instructions are enclosed with this register. We suggest you make copies of this form for submissions and keep the original with this book for future reference. Keep a copy of any nominations you submit.

- ◆ Information needed to nominate a tree:
  - Tree name and species.
  - Location with enough detail that the tree can be found again. (GPS coordinates in UTM format are preferred for rural trees).
  - Owner's name, phone number, and address.
  - Nominator's name, phone number, and address.
  - Date measured and by whom.
  - Photos appreciated (please identify people, tree and date).



BIRD'S EYE VIEW OF CROWN MEASUREMENT



Greg Pyatt, former NDF urban forester, measures the circumference of the champion valley oak in Genoa, Douglas County.

- ◆ Send to:

**NEVADA BIG TREE PROGRAM  
NEVADA DIVISION OF FORESTRY  
2525 SOUTH CARSON STREET  
CARSON CITY NV 89701-5502**

- ◆ Measuring assistance is available at your local Nevada Division of Forestry (NDF) office, University of Nevada Cooperative Extension, or U. S. Forest Service office. For more information call the NDF Urban Forestry Program at:  
**775-684-2506 or FAX 775-687-4244**



# About this Register and the Nevada Big Tree Program

All across Nevada, *Big Tree* enthusiasts are searching for the largest tree of any species that grows in the state. Cities and communities have many of them. Backroads and trails lead past them. Big trees can be anywhere; they're just waiting to be noticed.

So what constitutes a *Big Tree* champion? A tree is defined as:

a woody plant having an erect perennial stem at least 9½ inches in circumference (3 inches in diameter) at 4½ feet above the ground (breast height), a definitely formed crown of foliage, and a height of at least 13 feet. -- *Checklist of United States Trees - Native and Naturalized* (Ag. Handbook No. 541)

Some plants surprisingly considered to be trees are sagebrush, jumping cholla, serviceberry, and cliffrose.

Many of Nevada's conifers have larger counterparts in other states because Nevada's trees were logged to meet the heavy lumber and mining needs of the middle 1800s. Logging wiped out massive forests to supply building lumber, support timbers, and charcoal for the mines and smelters.

A tree is a potential champion if it is large for its species. Some trees on the state register would be dwarfed by equivalents growing in their native habitat, but they are still Nevada champions. In some cases, we believe trees are on the register that aren't the largest growing in the state. But they are the largest to have been nominated, so they will reign as champions until someone nominates a bigger one.

The total points that a tree receives determines its champion status and is based on its height, its circumference, and one-quarter of its average crown spread. Some of our trees share champion status with another large tree. Co-champion status is also decided by points. If two trees of the same species are over 200 total points and within 10 points of each other, they are listed as co-champions. Or if two trees are less than 200 total points and within 5 points of each other, they are listed as co-champions.

Based on points, the largest tree in Nevada is a Fremont cottonwood in Steamboat, south of Reno; it measures 530 points. At 623 points, the largest Fremont cottonwood in the nation is in Santa Cruz County, Arizona.

The tallest tree in Nevada is a California red fir measuring 160 feet in height with a total of 403 points; it is growing in the Lake Tahoe Basin. This fir tree is not as large as the Fremont cottonwood because, although the cottonwood is shorter, it has a much larger circumference and crownspread. The tallest California red fir in the nation is in Yosemite National Park. It is 172 feet tall and scores a total of 547 points.

A red-osier dogwood in Elko County is one of the smallest state champions. It has a five-inch circumference and a total of 20 points. But the national champion isn't much bigger. It scores 43 points and grows in White Bird, Idaho.

Three of our state champions are also national champions. They are a turbinella oak at Spring Mountain Ranch State Park near Las Vegas, a big sagebrush in Carson City, and a curleaf mountain mahogany in the Schell Creek Range of White Pine County (pictured below). We have also had measurements from a new bristlecone pine that is larger than the current national champion, but the numbers have not been confirmed yet.



*Champion mountain mahogany in the Schell Creek Range of White Pine County with one of the two nominators.*

"Each generation takes the earth as trustees. We ought to bequeath to posterity as many forests and orchards as we have exhausted and consumed."

**--J. Sterling Morton, Arbor Day Founder**

## On a Historical Note

For over 10 years, the Nevada *Big Tree* program has been growing, increasing the number of champion trees, as avid *Big Tree* hunters find more species and larger specimens. NDF started collecting data and nominations in 1991 and 1992. When the first state list came out in 1993, it was seen as a challenge to find even bigger trees. *Big Tree* hunters across the state rose to that challenge, and today only 17 of the 65 trees nominated on that first list hold their champion status.

Even before the state program was established, people were looking for champion trees in Nevada. A Utah juniper in the Deep Canyon area of the Shoshone Mountains received national champion status in 1974. But it was dethroned by a larger tree in Utah a few years later. Now the largest one that we have been able to locate in the state is in the Riley Creek Canyon of the same range.

One of our early reigning state champions is the thornless honeylocust in Panaca. Jim Ross, City of Reno Parks and Recreation, first noticed the tree in 1986. Two years later he measured the tree, thinking it might be a national champion (remember there was no state program at that time). It missed national champion status by "yards and yards" but later became the first tree nominated to the Nevada register. A picture of that tree is on page 7 of this register.

One hundred eighty plus trees are on this latest register. During the next few years, we challenge the *Big Tree* hunters to search out the biggest trees. The enclosed *Big Tree Register* includes a partial list of species not



*This is the largest tree in the state, a Fremont Cottonwood in Steamboat, south of Reno.*

yet represented and indicates what we call Future Champions. We suspect there are larger species out there, and we are hoping that you know where to look.

A nomination form and measuring instructions are included with this register. Make copies, keep them handy, and be on the lookout for big trees.

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## Famous and Historic Trees

**A**merican Forests has begun a nationwide search to identify this country's famous and historic trees and has published a book with the findings to date. Many of Nevada's trees figure prominently in a rich and colorful state and national history; we have begun collecting information on these trees in order to recognize them in a state register.

Perhaps you know of a tree that is a tribute to your community or was around when the state was young. It may not be big enough to be a state champion big tree, but its historical value should be considered.

If you believe you know of such a tree, contact the Urban Forestry program at 775-684-2506 for a nomination form and further details.

# National Champion Turbinella Oak

**T**he turbinella oak listed in the register is a tree of note for more than just its size! It grows in historic Spring Mountain Ranch State Park, at the foot of the colorful sandstone cliffs of Red Rock Canyon National Conservation Area west of Las Vegas. This tree has been witness to a rich heritage in southern Nevada.

The area was first discovered in the 1830s and was used by mountain man Bill Williams, who participated in a notorious raid on ranches in California, bringing the stolen horses to this site to hide out. A sandstone cabin and blacksmith shop built in 1864 are among the oldest buildings in the Las Vegas area.

The ranch has been owned by several prominent people over the years, and in 1974, the property was sold to the Nevada Division of State Parks for \$3.25 million. Today visitors can tour the historic ranch house and grounds, then picnic in the shade of the turbinella grove, which contains the largest turbinella oaks in the world.

The state and national champion turbinella oak tree has seen a great deal of history during its lifetime and would be able to tell some fascinating tales if it could talk. This stately and worldly oak is pictured below. It has also been nominated for the National Famous and Historic Trees registry.



*Champion turbinella oak at Spring Mountain Ranch State Park near Las Vegas.*

## Status of the Washoe Pine

**D**ebate on the species status of the Washoe pine has been ongoing since before the previous register was printed. It was reported in that register that genetic testing renders the Washoe pine and the "North Plateau race" of ponderosa pine indistinguishable. However, that did not end the discussion.

A member of the Nevada Rare Plant Committee hypothesized that if the Washoe pine's features were just an aberration of nature, it would be found in other areas of similar climate and soil composition. He did some serious scouting and collecting on the eastern slopes of the Cascades in Washington state, where that variant is well-established, and he found no tree that looked anything like our Washoe pines. This led him to believe that if the Washoe pine is not a unique species, it is at least a unique race of ponderosa pine, not a member of the "North Plateau race" of ponderosa. (Information came from Dr. David Charlet's report to the Nevada Rare Plant Committee in April 2003.)

Although there has been much discussion and consideration, there has still been no final determination on the status of Washoe Pine.

"To exist as a nation, to prosper as a state,  
and to live as a people, we must have trees."

**--Theodore Roosevelt**



## Future Champions



*This future champion is a chinkapin oak, growing in Idlewild Park, Reno.*

In this register some of the trees are marked with a diamond to indicate future champions. They're not all that big yet, but they have the potential, and they are trees more recently brought into Nevada. If you know of one of these trees that is bigger than the one we have on file, send in a nomination. It would be great to have the register filled with more mature champions.

Following are some points comparisons so you can see for yourself why champion status is being deferred for some of these trees while they grow.

TREE SPECIES	NEVADA POINTS	NATIONAL POINTS	NATIONAL LOCATION
Bald Cypress	70	748	Francisville, LA
Desert Willow	48	240	Gila Co., AZ
Western Hackberry	73	268	Catron Co., NM
Shingle Oak	71	329	Cincinnati, OH
Chinkapin Oak	65	391	Clark Co., KY

"There is no aristocracy in trees. They will thrive near the humblest of cabin . . . and become just as refreshing to the eye and as fruitful as they will be in the shadow of a kings palace."

--J. Sterling Morton, Arbor Day Founder

## Big Tree Enthusiast

Jim Ross, longtime city forester for Reno, is recognized for having the most nominations in this edition. Jim has been planting trees in Reno since 1978; his efforts to increase tree diversity in Reno's parks and public areas over the years have paid off. He knows what unusual species have been planted and how well they have grown. In fact, the persimmon on the register as a future champion was started from a seed that Jim got in his hometown in Indiana.

Jim's many years with the City of Reno have made him a valuable resource to the state *Big Tree* program, and when it comes to tracking down big trees, Jim knows where to look. Although many of his champions are in Reno, he has also found other champions across the state. Congratulations to Jim on submitting more than 40 nominations between 1991 and 2003.



*The champion thornless honeylocust in Panaca, Lincoln County, was one of the trees on the 1993 state list. It is growing at the LDS church.*

## Champion Natives



*The western honey mesquite grows in Ash Meadows National Wildlife Refuge, Nye County.*



*This Rocky Mountain ponderosa pine is growing near Mt. Charleston, Clark County. The person standing at the base of the tree is Bruce Van Pelt, co-nominator.*



*This catclaw acacia is in Las Vegas. It was saved by the construction company, even though other trees were removed. It is now recognized as a state champion and is giving the new area "bragging*



*This limber pine is located in the Schell Creek Range of White Pine County.*



Nevada Division of Forestry

NEVADA BIG TREE PROGRAM NOMINATION FORM

Provide as much information as is known. Refer to back of form for measuring instructions.

**TREE INFORMATION** Date measured \_\_\_\_\_ Measured by \_\_\_\_\_

Common name \_\_\_\_\_ Scientific name \_\_\_\_\_

1) Trunk circumference \_\_\_\_\_ inches (measured at 4½ ft. above average ground level)

2) Height \_\_\_\_\_ feet

3a) Average crown spread \_\_\_\_\_ feet

(widest crown spread (diameter) \_\_\_\_\_ ft. + narrowest crown spread \_\_\_\_\_ ft. divided by 2) = Average Crown Spread

3b) Crown points \_\_\_\_\_ (¼ the average crown spread)

OFFICE USE ONLY  
TOTAL POINTS

Comments: Condition of tree/historical significance/other \_\_\_\_\_

Species verification: verified by (USFS, NDF, botanist, forester, city forester, herbarium, arboretum, etc.) list name, affiliation, phone: \_\_\_\_\_

**LOCATION** County \_\_\_\_\_

• **IF CITY TREE:** Street Address \_\_\_\_\_ City \_\_\_\_\_

Location on property \_\_\_\_\_

• **IF RURAL/FOREST TREE:**

GPS coordinates: Zone 11S \_\_\_\_\_ Easting, \_\_\_\_\_ Northing,

Geographic Projection

☐ WGS84, ☐ NAD27, ☐ NAD83

or Latitude N \_\_\_\_\_ degrees \_\_\_\_\_ minutes Longitude W \_\_\_\_\_ degrees \_\_\_\_\_ minutes

And/or Map coordinates: Township \_\_\_\_\_ Range \_\_\_\_\_ Section \_\_\_\_\_ ¼ Section \_\_\_\_\_

Describe geographical location/directions \_\_\_\_\_

**OWNERSHIP INFORMATION**

Name \_\_\_\_\_ Phone \_\_\_\_\_

Mailing address \_\_\_\_\_ City/Zip \_\_\_\_\_

**NOMINATOR INFORMATION**

Name \_\_\_\_\_ Phone \_\_\_\_\_

Mailing address \_\_\_\_\_ City/Zip \_\_\_\_\_

Other nominator's name/address and phone \_\_\_\_\_

Photo or slide enclosed? **Yes** **No**  
Digital available? **Yes** **No**

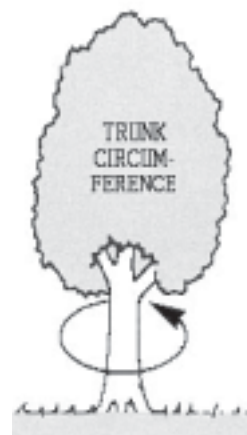
Return application to: **NEVADA BIG TREE PROGRAM  
NEVADA DIVISION OF FORESTRY  
2525 SOUTH CARSON STREET  
CARSON CITY NV 89701-5502**

For assistance or more information: **PHONE: (775) 684-2506  
FAX: (775) 687-4244**

## MEASURING INSTRUCTIONS

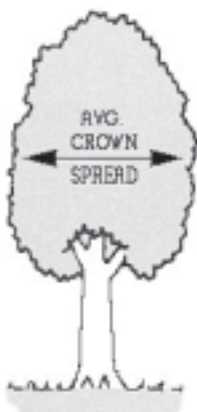
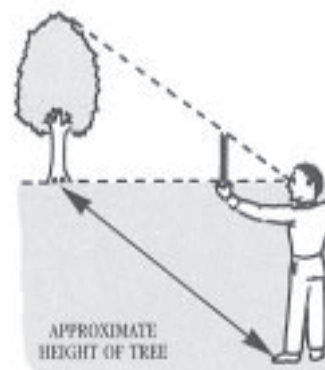
### **1) TRUNK CIRCUMFERENCE IN INCHES**

- **Measure at 4½ feet above the average ground level.**
- **If there is a fork at 4½ feet**, measure the smallest circumference below the fork.
- **If there is a burl or swelling or branch at 4½ feet**, then measure at the smallest circumference below it.
- **If the tree branches or forks below 4½ feet**, measure the largest single stem above the fork at 4½ feet from ground.
- **If the ground is sloped** and not level at the base of the trunk, use the average of two measurements, one taken at 4½ feet from the ground on the uphill side and one taken at 4½ feet from ground on the lowest side.



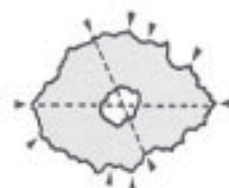
**2) VERTICAL HEIGHT IN FEET** - Total height is the distance between the base of the tree's trunk and the topmost twig of the tree including any dead branches. Use the average of several measurements. Accurate measurements can be made with a transit, clinometer, laser level, or Abney hand level. Lacking these tools, you can use the straight stick method.

**Straight Stick Method:** Hold the stick at its base vertically at arm's length, making sure its length above your hand equals the distance from your hand to your eye. Staying on level ground, move away from the tree while sighting the base of the trunk over your hand. Stop when the stick above your hand appears to be the same length as the tree. You should be sighting over your hand to the base of the tree, and without moving anything but your eye, sighting over the top of the stick to the top of the tree. Measure how far you are from the tree, and that is the tree's height.



### **3) AVERAGE CROWN SPREAD IN FEET**

Measure the narrowest crown spread and the widest crown spread. The most accurate method is to trace an outline of the crown on the ground (or use stakes) in the soil directly beneath the outer tips of the branches. Using an imaginary line that would pass through the center of the trunk, measure the distance between the two points or stakes farthest apart, and a second measurement between the two closest points. Add these two measurements and divide by two for the average crown spread (diameter).



**PHOTOGRAPHS/SLIDES:** If you submit a photo or slide, write "Big Tree Nomination" on the back or on the slide frame, along with the date measured, tree species, and nominator's name and phone number. People in the photo will add interest and scale, but please identify the people in the photo. Digital photos are also acceptable; call the Urban Forestry Coordinator for an e-mail address to send it to. Your photos or slides may be used in *Big Tree* literature or online.

**HOW TREES ARE COMPARED:** To determine a tree's total points, the circumference, height, and ¼ of the average crown spread are added together to get a total point score. When two trees have scores within a few points of each other, they will be listed as co-champions.

*Please keep a copy of your completed form for your records.*

## *Some Non-Native Champions*



*This black locust is in historic Genoa, Douglas County. Notice the tree is doubling as a fence for the property owner.*



*This champion fig is in Lorenzi Park in Las Vegas.*



*Baker, in White Pine County, is home to the state's champion apple tree.*



*The cedar of Lebanon grows in Idlewild Park in Reno.*



Check the links below for information on *Big Tree* programs nationwide, the state *Big Tree* program, and other sites of interest to Nevadans. The Nevada Division of Forestry Web page has *Big Tree* updates and information, as well as information on other forestry topics. The contents of this booklet and related online information may be copied or downloaded.

[www.fs.usda.gov](http://www.fs.usda.gov)

[www.forestry.nv.gov](http://www.forestry.nv.gov)

[www.americanforests.org/resources/bigtrees](http://www.americanforests.org/resources/bigtrees)

<http://daily-tangents.com/TreeHunt>

USDA Forest Service

Nevada Division of Forestry

National Big Tree Register

Other state programs and *Big Tree* registers



*This champion singleleaf piñon pine is located in Washoe County. Its measurements are in the pine section of the register. Singleleaf piñon pine is one of Nevada's two state trees.*



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The Nevada Division of Forestry and the USDA Forest Service are equal opportunity service providers.

